Calibration Report: Infrared Thermometer (Pyrometer)

Travis Childrey and Bryan Fabbri York High / Science Systems and Applications, Inc. Hampton, Virginia

Summary

Calibration Date: 22 May 2006 Next Calibration Date: 22 May 2007

A collection, analysis and calibration of data from Heitronics Infrared Thermometer (Pyrometer), S/N:1414 has been completed. The calibration was performed by Wintronics, Inc. This data was collected by Wintronics, Inc., on May 22, 2006.

MODEL: KT19.85

SERIAL NUMBER: 1414

The manufacturer's specifications of the Infrared Thermometer (S/N: 1414) have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type of self-calibrating techniques, comparison to standards which are traceable to National Institute of Standards and Technology (NIST), or compared to consensus standards.

The condition of the instrument was in tolerance as received and as shipped.

The following pages provide more detail into the calibration process and results.

APPLICATION: Standard Campbell data logger program for KT19.85 infrared thermometer (pyrometer).

Wintronics, Inc.

50 Division Avenue Millington, NJ 07946

Phone: (908) 647-0144 Fax: (908) 647-8379

Certificate of Calibration

ANSI/NCSL Z540-1-1994

Certificate No.:

J0061895

Manufacturer: Heitronics

Description: Infrared Thermometer

Model No:

KT19.85

Serial No: 1414

Customer:

NASA Langley Research Center

Customer PO:

Customer Asset No:

Temperature: Humidity: Procedure:

23

Technician:

48

W60985

Date Cal:

PLW

Date Due:

5/22/2006 5/22/2007

The manufacturer's specifications of the above instrument have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type self-calibrating techniques, comparison to standards which are traceable to NIST, or compared to consensus standards. Wintronics' calibration procedures comply with ANSI/NCSL Z540-1 & MIL-STD-45662A. Wintronics' Quality program is registered to ISO9001:2000.

As received condition:

In Tolerance

As shipped condition: Type of Calibration:

In Tolerance

Normal

Calibration Standards

			Calibration			
Manufacturer Hart Scientific	Model 2563	Description Module, Thermistor	Asset # W143	Date 8/11/2005	Date Due	Cert. No.
Hart Scientific	5610-9	Thermistor Probe	W145	4/10/2006	8/11/2006 4/10/2007	J0057791 J0061536

Certified By

Peter Winter President

Wintronics, Inc. Calibration Report Job: J0061895 Wintronics, Inc., P.O. Box 337, Millington, NJ 07946 (908) 647-0144 Company: NASA Langley Research Center Model: Date: 05/22/06 Mfg: KT19.85(-II) Heitronics Tech: PLW Cust. Asset #: 1414 Function Nominal Value As Received Outgoing Tolerance TUR or Range or Cal Range Degrees C 0.0°C Not Applicable 0.0 ±0.71°C 10.0°C Not Applicable 10.1 ±0.64°C 20.0°C Not Applicable 20.2 ±0.57°C Not Applicable ±0.50°C 30.0°C 30.3 40.0°C Not Applicable 39.8 ±0.57°C 50.0°C 49.9 ±0.64°C Not Applicable 60.0°C Not Applicable 60.1 ±0.71°C ±0.78°C 70.0°C Not Applicable 70.3 ±0.85°C 80.0°C Not Applicable 80.3 90.0°C Not Applicable 90.5 ±0.92°C Not Applicable 100.5 ±0.99°C 100.0°C 1890 No Tolerance Cal Factor

Additional Comments: Any Test Uncertainty Ratio (TUR) that is less than 4:1 will appear under the "TUR" heading. If the TUR meets or exceeds 4:1, the field is left blank.

Standards listed used to monitor temperature of Mester ME20.03 Blackbody Calibration Source. Calibrated using lens L8AR. Nooming data not applicable as we were unsure which lens (of three supplied) the established cal factor was for.